



Energy/Environmental/Engineering

PERMITTING & ENVIRONMENTAL SERVICES

Changing regulations and increasing environmental laws and constraints are challenging the mining industry. This is occurring even though the mining industry has an exceptional record of diligently protecting the environment while extracting the resources necessary to sustain the economy of our country.

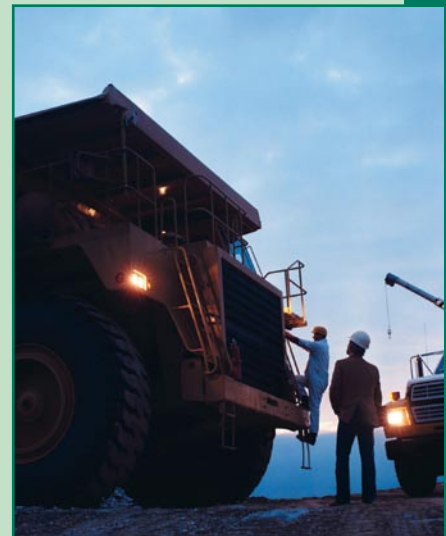
Marshall Miller & Associates, Inc. (MM&A), staff of geologists, hydrogeologists, mining and civil engineers, environmental scientists, biologists, chemists, and wetlands specialists possess the requisite skills and knowledge to assist the mining industry during this time of changing laws and increasingly complex environmental regulations. The collective knowledge of these multiple professional disciplines has been combined into a new mine-permitting unit within MM&A.

Partial List of Staff Experience

- Multiple seam open-pit and underground mining and facilities permits
- Principle Hazardous Constituent (PHC) and High Risk Point Source (HRPS) for mining permits
- Development of Cumulative Hydrologic Impact Assessments (CHIA)
- Assessment of subsidence impacts to structures and pipelines, and remediation
- Erosion and sediment control plans related to the coal and aggregates industries
- Active and passive acid water treatment system assessment, design, permitting, and installation
- Underground in-situ AMD treatment system design, permitting and installation
- Project management for site cleanup and permitting of mine blowout
- Quarry and mine plan development and permitting
- Design and permitting of underground mine crossing shallow stream valleys including grouting schemes, pillar design and hydrology
- Design and permitting of a proposed mining complex including a slope and shaft deep mine, a preparation plant, refuse disposal area and a unit train loading facility
- Multiple stream surveys, fish and wildlife plans and habitat assessments
- International - China EIS for 5-MM TPY coal mine
- Probable Hydrologic Consequences (PHC) evaluations
- Slope stability analysis
- Blasting designs and surveys
- Mine subsidence evaluations and control plans
- Excess material fill design
- Erosion and sediment control design
- Mine drainage control and treatment design
- Wetland delineation and stream determination

Permitting and Related Services

- Surface and underground mine permitting
- National Pollutant Discharge Elimination System (NPDES) permitting
- U.S. Army Corps of Engineers permitting
- Coal refuse disposal design and permitting
- Mine siting and development studies
- Mine planning and design
- Surface Water Runoff Analysis (SWROA)
- Geologic and hydrogeologic investigations



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Mining & Reclamation Permitting

In recent years, the regulatory requirements for obtaining mining and reclamation permits have greatly increased. On going litigation and associated activities will likely continue to change the regulatory climate relative to coal mining, particularly in the Central Appalachian region.

MM&A offers complete surface and deep mine permitting services to the coal aggregates, and mineral mining industries. Our qualified professionals have extensive experience in the permitting of surface mines, refuse disposal facilities, deep mines, and associated mining-related facilities throughout the region.

Particular expertise in the West Virginia, Kentucky, and Virginia coal fields and the aggregates industry in Virginia, North Carolina, Tennessee, South Carolina, and Kentucky.

Our staff has current and complete knowledge of the permitting process and communicates regularly with the appropriate regulatory agencies. Exceptional working relationships have been developed with individuals responsible for the review and ultimate issuance of mining permits in these states. These relationships help us to provide our clients with efficient and cost-effective permitting services in a timely manner.

Founded over 32 years ago, MM&A has grown to be a dynamic and diverse consulting and engineering firm providing a broad range of Geological and Engineering services to the energy and mineral extraction industries. Today, the employee-owned company operates from eleven offices in eight states and has over 190 employees. MM&A is an industry leader in the application of engineering and scientific solutions to the challenges facing the mining industry.



With thirteen office locations, MM&A is located in close proximity to the majority of mining operations in the eastern United States.

HEADQUARTERS

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With other offices in IN, KA, KY, LA, NC, OH, PA, TN, VA, WV

Marshall Miller & Associates, Inc. (MM&A) represents a unique assembly of engineers, geologists and science-related professionals, whose goals are to primarily serve the fossil fuels, land and mineral development industries; and to integrate successfully and professionally with government agencies to achieve environmental responsibility and preservation of natural resources.

We are also a company focused on the facilitation and design of sustainability programs and projects that in turn support the protection of the lands and water resources and enhance the long-term use and viability of developed lands.

ENVIRONMENTAL SERVICES

- Environmental Baseline Studies
- Environmental Impact Studies (EA, EIS & EIA)
- Evaluation of Overburden Suitability
- Clean Water Act (CWA) Related Plans (SPCC, SWPPP, State Specific Plans in WV, KY & PA)
- NPDES Compliance Sampling, Monitoring and Reporting
- SPCC & SWPPP Annual Training
- Comprehensive Waste Management Plans (WMP)
- Air Quality Permitting and Program Management
- Surface Mine Control and Remediation Act (SMCRA) Compliance
- Conduct Bat Surveys

LAND & WATER PLANNING AND MANAGEMENT

- Quarterly Independent Audits with Emphasis on OWM Compliance
- SMCRA and Sarbanes-Oxley Compliance
- Phase I and II Transaction Screening
- Phase I Through III Bond Release Forms
- Valley fill Certifications and Construction Reports
- Determination of Environmental and Reclamation Liabilities
- Disposal Facility Construction Certifications and Inspection Reporting
- Hydrologic Impact Prediction and Analysis
- Groundwater Characterization
- Acid Mine Drainage Treatment Facilities
- Mine Closure Evaluation Studies

REMEDIAL SERVICES

- Waste Characterization and Disposal
- Landfill Closure
- Lagoon Closure and Stabilization
- Monitor Well Installation and Maintenance
- Industrial Clean-up and Disposal
- Geoprobe Services
- Asbestos, PCB and Other Hazardous Material Remediation
- Spill Response and Disposal



Since 1975